Chapter 12 — Good Trouble in the Academy: Inventing Design-focused Case Studies about Public Management as an Archetype of Policy Design Research, by Michael Barzelay, Luciano Andrenacci, Sérgio N. Seabra and Yifei Yan¹

Abstract: Speaking archetypically, public organizations are practical means for implementing policy interventions. In this regard, their purposeful roles include furnishing operational capacity, while also sustaining support and legitimacy for the interventions as implemented. Contributions to fulfilling these roles are made by myriad practices and systems that are situated organizationally. Organizationally situated practices and systems are matters of concern for professional practitioners concerned with public organizations and their management. As they engage in creating and adapting such working phenomena, design-oriented professional practitioners bring professional knowledge into play. From this standpoint, there's a need for professional practitioners to acquire such professional knowledge, which implies a need for researchers to furnish it. At present, there's no good off the shelf solution for meeting that particular need. This chapter deals with the question of what to do about that gap. Dealing with it makes for good trouble.

Key words: archetype, case study, policy designing, practical argumentation, public management, public organizations

How to design policy interventions is a classic question. What sort of question it is depends on whom you would ask. If he were still living, you'd want to ask the Roman educator, Quintilian, whose classic textbook on rhetoric, *Institutio Oratoria*, was completed around 95 A.D. Quintilian would first

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recall the Aristotelian distinction between *theoretical* questions suited for philosophical discussion, on the one hand, and *practical* questions concerned with action, on the other. He'd then introduce a further two-fold classification, between *indefinite* and *definite* questions (Quintilian, 1920: Book 3). If you don't respond knowingly, he would remind you that indefinite questions are addressed without any reference to specific persons, time or place and the like, while definite questions are the reverse. As for an example, he would say that the question, "Should a man marry?" is indefinite; the question "Should Cato marry?" is definite. (Actually, "should Cato marry Marcia" is even more definite.)² If you stopped Quintilian there and asked what kind of question is how to design policy, he'd say based on what has been said so far, it appears to be more about prospective action than about contemplative knowledge, while, further, it doesn't involve any specific reference to time, place, persons or the like; therefore, from the standpoint of rhetoric, you appear to be posing a question that is at once *practical* and *indefinite*.

The questions posed in this chapter, like others in this *Handbook*, concern how to do research about how to design policy interventions. This topic is more specific than the original one, in that there's something of a reference to a class of persons, i.e., researchers, whose actions are at issue, in a general way. Still, the topic is aptly pigeonholed as essentially practical, rather than theoretical, and indefinite, rather than definite. That questions about research discussed in this chapter are essentially practical implies that we must speak of ends and their means (Vickers, 1965, Simon, 1996); that the questions are essentially indefinite implies that we must speak of archetypes of research and about their cases. That spells a certain degree of trouble, because tried-and-true practices for that sort of discussion are mainly known in philosophy and rhetoric, rather than in social science (White, 1985; Jonsen and Toulmin, 1988; Simons, 1990; Walton, 1992; Garsten, 2006).

² See, <u>https://en.wikipedia.org/wiki/Marcia (wife of Cato)</u>

This chapter concerns case studies, considered as an archetype of research that is highly relevant to furnishing knowledge about how to design policy.³ It deals with how to do instrumental case studies, and how to recruit a design perspective into case study research Furthermore, it deals with public organizations as they relate the planning and delivery of public programs and campaigns by public organizations, as befits the authors' shared interest in public management considered as a professional discipline (Barzelay, 2019). The label we give to the research archetype discussed in this chapter is design-focused case studies about public management.

The teleology (Ariew, Cummins, and Perlman, 2002) of design-focused case studies is to furnish usable knowledge (Lindblom and Cohen, 1979) that archetypically plays (a) "upstream" roles in educating professional practitioners, as well as (b) "downstream" roles when professional practitioners refer to them in practice situations, as design references. Design references help channel design reasoning or to provide argumentative backing for design moves (Goldschmidt, 1998; Eckert, Stacey, and Earl, 2005; Lawson, 2012).

This usable knowledge takes two archetypal forms. One form is distillations of argumentative discussions on practical but indefinite questions. We label these *design-oriented purposive theories*, as they are practical in character, but neither prescriptive about action, nor normative about institutional procedures and institutions.⁴ The other form is *design-precedents*, which at the point of production are case studies of historically existing (or occurring) policy interventions, public organizations, practices, and related working phenomena.⁵

In what follows, we begin by showing why a classic case study, *Essence of Decision* (Allison 1971), can be reinterpreted and recovered as a design-focused case study. Moving on from this

³ The main source of the concept of archetype as used here is design studies (Sudjic, 2008). In the realm of applied science and social science, the term has recently been used, specifically in relation to case studies, in a synthesis of a symposium in *Economy and Society* on "Archetype Analysis in Sustainability Research." See, Oberlack, et al. (2019). ⁴A term-of-art for such distillations is doctrine (Hood and Jackson, 1991). In political theory, political science, and law, these matters have been discussed at some length, as in Mashaw (1981), Linder and Peters (1988), Anderson (1993), Soltan (1993), Stivers (2000), and Stoker (2012).

⁵ We include an Appendix with a glossary for definitions of this and other key terms mentioned in this chapter.

example, we delve into issues that are more about orientations toward design-oriented case study research. We conclude the chapter with a dialogue between our approach and the policy designing research related to public policy-making. Taken together, this chapter should help you see why doing design-focused case studies is good trouble.⁶ and it may help to get you out of not-so-good trouble more quickly if you go for it in the first place.

1. A Classic Design-Focused Case Study, in Retrospect

Design-focused case studies have long existed in the academic literature on policy interventions. Indeed, some studies have arguably taken on iconic status precisely because of that. We make this point by harkening back to Graham Allison's (1971) *Essence of Decision: Explaining the Cuban Missile Crisis*.

From an International Relations perspective, the policy archetype is handling a national security crisis. From a Public Management perspective, let us consider the archetype is a campaign⁷. A two-week campaign involving public organizations, helped deal in the autumn of 1962 with a national security crisis precipitated by the detection of the Soviet Union's moves to deploy nuclear missile launch capabilities in Cuba. Activities that can be identified as "management functions" were performed by the U.S. Presidency in the temporal context of the Cold War era. These activities involved a temporary organization, the Executive Committee (Ex-Comm) advising the President and functioning as a liaison device (Mintzberg, 1983) among government departments. The campaign's management functions were performed by meetings involving the Ex-Comm and the President – and the "campaign moves" they led to. Such moves triggered and channeled other "event-like activities"

⁶The use of this phrase is largely inspired by the life of the late John Lewis, a U.S. civil rights movement leader and long-serving congressman. It encapsulated a non-violence approach to social change in the face of oppression. A documentary film about his life and approach was recently released. See, <u>https://en.wikipedia.org/wiki/John Lewis: Good Trouble</u>.

⁷The term "campaign" is borrowed from the realm of military doctrine and history. In the original context, a campaign is a collective effort involving diverse components (like battles and functionally-differentiated organizations) brought together for a span of time to accomplish specific purposes within a time-window.

(we shall return to these) in a variety of institutional locations within U.S. Government, such as military commands that were organizationally differentiated from the Presidential office which hosted the Ex-Comm. These aggregate and cumulative moves played roles in fulfilling the overall intent of the campaign; and they arguably worked in that nuclear war was averted.

A number of analytical moves we made in characterizing *Essence of Decision* are worth a few clarifying comments. First, by way of conceptual engineering (Burgess, Cappelen, and Plunkett, 2020), we blend the idea of campaign with practical theories of enterprises and their management. The enterprise-function of management is multi-fold, with its aspects including directing, planning, coordinating, and controlling (Fayol, 1984). Thus, the practical archetype includes performing the campaign-functions of directing, planning, coordinating and controlling to effectuate the fulfilment of campaign-intent and the larger purposes for which the campaign plays a role as means.

The archetype and the case are framed also in terms of "social reality", that is to say, analytically delineated in terms of social process and social entities (Rescher, 1996) and grouped together. The key term here is "event-like activity", which helps to underline a view of social reality as being *process*-like. Another move in characterizing the case is to import ideas from the organization design literature, such as role differentiation, temporary organization, and liaison devices (Mintzberg, 1983). Altogether, the framing of the archetype and the case conform to institutional processualism, considered as an approach to studying policy-related phenomena in an organizationally-sensitive way (Barzelay and Gallego, 2006).

When discussed in a policy school context, Allison's case is known for suggesting that the campaign's management function worked effectively to neutralize a decision-making trap known as "groupthink" (Janis, 1971). Groupthink is a pattern of behavior. Reality judgments and instrumental judgments become faulty if cognitive short-cuts are activated for reasons of group cohesion as they intersect with context factors, such as deadlines. From this standpoint, the campaign's activities were practical in that they functioned to neutralize groupthink, thereby leading to the fulfilment of the campaign's functional-teleology.

From an argumentation theory perspective (Toulmin, 1958, Dunn, 2018), a variety of "warrants" are involved in a statement like this, some of which are "functional-teleological" (related to how intent was fulfilled) and some are "epistemic" (related to social process). The functional-teleological warrants lie in the argument that some campaign moves were apt means for the fulfilment of campaign-intent. The epistemic warrants lie in the idea that conditions prevailing within this campaign were an inherent source of the groupthink but, nevertheless, this trap was avoided for reasons that can be fairly attributed to its features and behavioral characteristics, including some involving the president's interactions with the Ex-Comm.

Let us hope *Essence of Decision*, thus "curated", illustrates our point about what a design-focused case study in public management can be. And let us move to further illuminate this research archetype: design-focused case studies about public management.

2. Genealogy of the Design-Focused Case Study Archetype

Our research archetype has eventuated from a long-distance intellectual journey. Tracing its path is a practical way to present this archetype. This section begins by recounting the initial impetus for that journey in the mid-1990s along with the further steps taken in the following decade. The cumulative steps, up to 2007, can be seen as having established the archetype's essentials (see Figure 1). The second part of the section provides a snap-shot of the journey at the point where this *Handbook* chapter is written. It does so by presenting a genealogical tree for design-focused case studies about public management and indicates how this archetype has been conceptually engineered by combining elements from management, processual sociology, and contemporary policy sciences (captured in Figure 2, to be shown later on).

2.1. An unpleasant "dialogue"

The idea of design-focused case studies about public management can be traced back to a symposium published in the *Journal of Policy Analysis and Management* (JPAM) in 1994, consisting in one invited essay entitled "Public Management: The Triumph of Art over Science" (Lynn, 1994)

and three commentaries about it. The invited essay's author, Laurence Lynn, was then a professor at the University of Chicago, on its faculties of public policy as well as social administration. An economist by training, Lynn's early career was in Federal government agencies, where he served in policy planning and evaluation roles, especially in the Department of Health and Human Services. During the early Reagan period, Lynn took up a professorship at Harvard's Kennedy School of Government. After a few years, he left for Chicago.

The 1994 *JPAM* essay was a bombshell attack on what Lynn considered to be an ill-judged tendency within the academic public policy field that called itself "public management". A tactical objective of the attack was to repudiate publications concerned with leadership and substantive innovative change in public organizations, which he called "best-practice research". The specific targets were books that grew out of the Ford Foundation/Harvard Kennedy School Program on Innovations in State and Local Government.⁸

The relevant commentary on the lead-piece was written by Eugene Bardach, Professor of Public Policy at University of California, Berkeley, and entitled "The Problem of Best Practice Research." Bardach engaged Lynn's piece as though it was meant to pose a genuine intellectual challenge:

Lynn is on...solid ground when he characterizes the research tradition he dislikes as being centrally concerned with "best practice." And he is right that this line of research proceeds without sufficient methodological self-awareness or, when awareness is present, success. But why should this be so? Lynn finds the answer in misbegotten desires to serve practitioners who are themselves uninterested in methodological niceties. Whether or not he is right about this, he does not mention, or appear to understand, a more legitimate reason: The goal of "best practice" research – namely, widening the range of solutions to

⁸ The JPAM essay was then extended to book length and published a few years later under the title *Public Management* as Art, Science, and Profession (Lynn, 1996).

problems – is simply too important to defer, even though the supporting methodology has been frustratingly slow to develop (Bardach, 1994: 260).

JPAM's editors offered Lynn space for a rejoinder, in which he dismissed Bardach's commentary as being deaf to the case that he had put forward, which he then reiterated.

While the symposium didn't produce dialogue, it did reveal a way of re-imagining public management research and set the stage for the later appearance of Bardach's own archetype: smart practices analysis (SPA). In the "Problem of Best Practice Research," Bardach illustrated the contast between best practice research and smart practice analysis by analyzing several of the case studies in *Breaking Through Bureaucracy: A New Vision for Managing in Government* (Barzelay, 1992), one of the books that had been targeted in Lynn's essay. Bardach's re-analysis of *Breaking Through Bureaucracy's* cases was akin to applying the method of reverse-engineering (Chikofsky and Cross, 1990), in that it addressed the issue of *how* a given "subject system" gives rise to a particular pattern of conditions which performs functions that allow for attaining the purposes for which the subject system exists. Applying reverse-engineering methods results in the recovery of a subject-system's design. Bardach showed a way to recover a subject-system's design when the subject system is a contrived pattern of organizational activity as contrasted with a physical or software system. In recovering the designs that were immanent in the cases as presented in the original book, Bardach dwelled on how their various features worked systematically to neutralize causal tendencies that were adverse in relation to the purposes of the organizations in question.

2.2. The archetype's essentials

Bardach's 1994 commentary on the problem of best practice research – not least, its major reshuffling of the case analysis within *Breaking Through Bureaucracy* -- served as a main inspiration for Barzelay and Campbell's (2003) *Preparing for the Future: Strategic Planning in the U.S. Air Force*. This book was explicitly with public organizations and their management, as distinct from public program implementation. Accordingly, the book took inspiration from the literature identified

with strategic management in government, including Mark Moore's (1995) then still fairly recent book, as well as John Bryson's (1995, 2018) *Strategic Planning for Public and Nonprofit Organizations*.

The resulting archetype was framed in terms of meeting a public organization's public valuecreating imperatives (pace Moore), including securing support from the authorizing environment, as well as in terms of performing an enterprise's managerial functions (Fayol). The practical theory developed in the book was more specifically concerned with the joint performance of the managerial functions of planning and directing, as well as with challenges that arise when an organization's functional-teleology includes adaptation to changing mixes of policy goals over a long-term horizon. A role of the book's case study was to characterize a variety of archetypal challenges such as strong momentum behind existing acquisition programs, executive turnover involving fixed-term appointments of four years or less, intra-institutional stovepipes, and inter-institutional rivalry. The book used the US Air Force (USAF) "case", overall, as an inspiration for thematic approaches to these archetypal problems, labeled "preparing for the future,". It also developed case-analyses of specific strategic planning projects, such as the 1998-9 Futures Games, in ways akin to reverseengineering. The result was to furnish both narrative and design recovery-type accounts of a halfdozen specific USAF planning projects that played largely complementary roles within that institution over the 1994-2001 period. All in all, Preparing for the Future exemplified what we call here design-focused case studies about public management, with its development of practical argumentation about strategic planning in public organizations, considered archetypically, and its furnishing of case analyses of specific "working phenomena" in ways that "recovered their designs" for playing strategic roles within a particular setting.

Article-length statements of this research archetype appeared immediately after. The first was the published version of Bardach's (2004) presidential address to the Association of Public Policy and Management (APPAM), published in *JPAM*. The title was "The Extrapolation Problem: How Can We Learn from the Experience of Others?" The essay presented the smart practices approach as

an archetype of policy analytic work undertaken by professional practitioners, to provide a basis for moves (i.e., expressed thoughts and practical arguments) about designs and plans for programs or other policy-interventions. "Extrapolations" thus involved address two intertwined issues: how to reverse-engineer a practice identified within a "source site", and how to use what eventuates from such a study in designing and planning for a "target site". The Smart Practices Analysis (SPA) was presented as an archetype, not only in terms of its functional-intent but also in terms of what analytical heuristics are aptly used in seeking to achieve it. Let us turn to these now, while also recruiting ideas from reverse-engineering.

A preliminary step in SPA is to identify what reverse-engineering approaches refer to as "the subject system". For Bardach, that is the identified practice. Bardach discusses the inherent difficulties of claiming the identity of a practice, as it is not an artifact or physically embodied technology. He solves the matter essentially by saying that the practice is what an analyst finds relevant in a source site, given a motivation to designing and planning for a target site. Bardach suggests that a practice can be identified through functional taxonomies that are *specific to* a kind of policy or administrative practice, but *not specific to* source or target sites. He used functional taxonomies from the field of regulatory inspection to illustrate the idea. Bardach further pointed out that SPA could involve reshuffling established taxonomies, if that is deemed to be apt.

In our view, Bardach's heuristics in SPA relate to the vital distinction, within reverseengineering, between *redocumenting a subject system* and *recovering its design*. "Redocumentation" eventuates in accurate descriptions of items that belong to a subject system, due to moves made when it was being forward-engineered. By contrast, design recovery eventuates in statements about the causal sources of fulfilment of both a subject system's functional requirements and its intent. If redocumentation is an apt way of listing what a subject system *consists in*, design recovery reveals how a subject system *works*. The role of Bardach's SPA is, in this sense, design discovery.

A main heuristic for design discovery through SPA is to answer the "how does it work" question by formulating statements along the following lines: "This practice aims to produce a lot of value for relatively little in the way of ….resources by taking advantage of…." (Bardach, 2004: 214). The phrase, "producing a lot of value for little" tracks the issue of whether a practice is cost-effective, at least in its source site. The idea of "taking advantage of" comes from setting up a metaphor between practices and the artifices that are created through engineering and architectural design. Culture, Bardach reminds us, holds that machines and other artifices place nature's free gifts – as theorized in science as physical mechanisms -- in the service of satisfying human wants, on the cheap. Under Bardach's metaphor, smart practices correspondingly place "social nature" – as theorized in social science as social and psychological mechanisms -- in the service of implementing programs, similarly on the cheap. This is a beautiful idea, illustrated effectively with a few cases that make for an archetype about teaching public policy analysis in an experiential manner.

Design recovery, then, involves moves of an analytic nature that center on the relation between (a) social nature's mechanisms and (b) conditions that belong to a practice, whether such conditions are due to intentional choice or to the practice's inherent situatedness or context. Bardach's vocabulary for the social nature-condition relation included "features" and "implementation". Specifically, a practice's features implement any such mechanisms as constitute social nature. As such, a program or practice's features – properly understood -- are its conditions to play functional roles fitting its functional-teleology. How does a feature play such a functional role? A feature can only play such a functional role in a practice if it plays a corresponding causal role within its "empirical reality". What sort of causal role is played by features? Although Bardach considers this briefly in the footnotes, we can take it both features and mechanisms are causal sources of those patterns of change and/or functioning identified with a practice's empirical reality. Mechanisms are the causes that make features work causally and functionally within a practice. SPA thus characterizes the role mechanisms play in making a practice's condition-like empirical reality work, as features, to implement a practice's functional-teleology, whether the cheap or otherwise.

The practical takeaway from this is that SPA is an archetype that deserves a proper place in the policy field, with complementary elements such as policy curricula to effectuate improvements in

practitioners' skillful abilities of designing, so as to better base extrapolating moves with policy planning scenarios. Bardach did demur that a groundswell of interest in this archetype was not in the cards, because it was incongruous with the mind-set of social scientists working in policy schools. But he did express some confidence that he was making a cogent argument that would be taken on its merits.

2.3. The archetype's evolution

SPA was "domesticated" within a social science journal context, so to say, in an article published hosted by *Governance* in a special issue on innovation in public management edited by Colin Campbell (Barzelay, 2007). This article as aimed to provide a methodology for a case-oriented style of (extrapolation-oriented) public management research, presenting Bardach (2004) as a step towards an approach to recovering the designs of practices in source sites, for extrapolation-oriented policy analysis in target sites. In so domesticating Bardach's SPA, the *Governance* article focused on a way of framing (and then studying) practices as empirical phenomena, whereas Bardach treated this aspect of SPA in a way that was integral to (and seemingly indistinguishable from) the practice of policy analysis. In doing that, the *Governance* article worked Bardach's aforementioned footnotes – with its references to social mechanisms – into the main discussion.

The main route to doing that was to characterize practices as "event-like situations", borrowing a key concept from a contemporary rendering of ideas that had coalesced historically in the second Chicago School of Sociology (Rock, 1979, Abbott, 2001a). An event-like situation takes "social process" as a key aspect of social reality to be characterized analytically. Its event-like character involves an ontology whereby situations involve spatially and temporally located activity (Abbott, 2001). This way of looking at social process shapes the way causation is conceived. Causation involves relations among an event's sources, trajectories (or paths), and outcomes. Spatially and temporally located sources are causes of an event's spatially and temporally located activities, which, in turn, are causes of an event's spatially and temporally located outcomes. This "processual" view of social reality served as the *Governance* article's conceptual frame for a case-oriented style of (extrapolation-oriented) public management research. In its language, a practice's empirical reality involves event-like relations among (a) sources, (b) activities, and (c) event-outcomes. The event-like sources are seen to channel event-like activities which eventuate in event-like outcomes. The words "channel" and "eventuate" are meant to be consonant with an emergentist as opposed to deterministic perspective on social process (Abbott, 2002). Furthermore, sources are not seen as variables that have separate causal effects on either activities or outcomes, while the temporal qualities of sources matter to the trajectories and outcomes of event-like activities. All in all, a perspective that Charles Ragin (1987) called "essentialization".

The concept of event-like activities can be brought into play whenever empirical reality is looked at in this processual manner. It can be applied to small chunks of empirical reality, such as a single meeting among as few as two people, or to larger chunks, like long-running repetitive cycles -- budget formulation --or large scale, stage-like phenomena: campaigns.

The processual tradition of social analysis includes the use of heuristical methods of discovery that have come to be associated with the plural noun, "social mechanisms." In essence, social mechanisms are a stock of versatile models pressed into service when constructing and presenting arguments that aim to account for a case study's *explananda*. Instructive examples of social mechanisms include self-fulfilling prophecy (Merton, 1948), commitment escalation (Staw, 1981), or actor-certification (McAdam, Tarrow, and Tilly, 2001). Viewed as a type, social mechanisms are distillations of argumentative discussions, conducted within or among social science disciplines. Such argumentative discussions inevitably involve conceptual engineering in the form of conceptual blending, compression, or metaphor (Fauconnier and Turner, 2002; Lakoff and Johnson, 1999). Social mechanisms, like other models, idealize social reality both descriptively and causally (Morrison and Morgan, 1999). They are broadly apt for use in constructing explanatory accounts of the case study's *explananda*, though the meaning they carry for readers is more profound when the understand how concepts idealize social reality and specifically processes.

In the *Governance* article, social mechanisms came into the research archetype for explaining the trajectories and outcomes of cases that involved what Bardach called practices. But it "unbundled" Bardach's practices, placing an emphasis on causal as distinct from descriptive idealization. Features thus slot into the conceptual role of sources of an event's trajectory of conditions and, accordingly, as ultimately sources of the event-outcome. This suggests that a key role played by social mechanisms in explanations is to elucidate causal connections among a practice's features, on the one hand, and its trajectories and outcomes, on the other.

At this point, several issues clamor to be first in line for clarification. Is the role of social mechanisms limited to elucidating causal connections among a practice's features, on the one hand, and its trajectories and outcomes, on the other? What concepts other than features fit the slot of dynamically stable conditions within a practice, thereby playing a source-like role in explaining trajectories and outcomes? Is the idea of social mechanisms in the *Governance* article's archetype of case study research the same, or *identical*, as the idea of social mechanisms in Bardach's archetype of SPA, in all important respects? We address these matters of clarification briefly, now.

The response to the first issue is that social mechanisms elucidate any and all causal connections within a practice's empirical reality. Some are particularly apt for elucidating causal connectivity between features and activities within unfolding events. An example is homophily in networks, which would be apt in elucidating causal connections between a meeting cycle (a feature), on the one hand, and attendance and attentiveness during actual meetings (an activity pattern), on the other (Barzelay, 2019: 124-129). Some are particularly apt for elucidating causal connectivity among activity-like moves that occur as events unfold. Such social mechanisms include commitment escalation (Staw, 1981) and actor certification (McAdam, Tarrow, and Tilly, 2001). Indeed, the point is that social mechanism-based explanations are mosaic-like, as suggested by the Gambetta's (1998) idea that multiple mechanisms come into play in an explanatory argument, with each playing its own conceptually distinct role, such that social mechanisms become concatenated as an explanation is built.

The response to the second issue is that features are not the only dynamically-stable conditions belonging to practices, in either Bardach (2004) or the *Governance* article. In the former, conditions labeled as "resources" exist in his conceptual schema of practices, as do conditions that relate to the patterns in the authorizing environment, such as "partisan sniping, stability in key personnel, and micromanagement by the legislative branch." These conditions are not feature-like. The *Governance* article introduces *process-context factors* as a category of dynamically-stable conditions within a practice which are not archetypically feature-like. Their contrast category of dynamically-stable conditions in practices is *process-design features*.

These two categories – roughly, practice features and context -- are similar in that they both play the conceptual role of causal sources within event-like activities that constitute practices. Their difference in meaning reflects the fact that all concepts of a goal-derived nature, including research archetypes, get their meaning from their own context and their purposes. Given that the purpose is to facilitate extrapolation-oriented policy practice, it makes sense to distinguish (a) features, i.e., dynamically-stable conditions that can be seen as having come to be present in a practice through attempts to achieve intentional control over social reality for practical reasons, from (b) context, i.e., conditions that come into play in accord with a different narrative, such as one where human action is the source of unintended consequences or one of institutional layering (Mahoney and Thelen, 2009).

Regarding the third question, as no two concepts are identical in meaning when they are fitted into different frames, and as these two articles are framed differently, the answer has to be no. But there is nonetheless considerable similarity between the meanings of social mechanisms in these different frames. Getting clear on how these two ideas are analogically close, and how they are not, offers a bonus in that it elucidates differences between social science research and (design-oriented) policy analysis, which Bardach's presidential address itself seemed intended to make rationally discussable. In the *Governance* article, the conceptual meaning of "social mechanisms" is inherited from the parent frame of social processes, which is a central aspect of processual sociology (Abbott, 2016). In Bardach (2004), the conceptual meaning of "social mechanisms" is inherited partly from this same source and partly from the interrelated conceptual domains of reverse- and forward-engineering. Let's revisit the latter. Let us just say Bardach imagines smart practices being advantageous by harnessing social nature and its constitutive social mechanisms. Smart practice analysis accordingly recovers a (smart) practice's design by elucidating the relation between features and social mechanisms, as they relate to (extreme) goal accomplishment (on the cheap, even when implementability conditions are not benign). There is evidently conceptual dissonance (not to say conceptual clash)⁹ between Bardach's SPA archetype and the archetype of case-oriented extrapolation research in the *Governance* article.

From our point of view, this dissonance is a price to be paid in bringing a design perspective into the study of public policy, given that the prevailing perspective is social scientific in character. To us, that is the subtext of Bardach's article – a subtext evident in his footnotes. To quote from the sixth of them:

My own conception of [social mechanisms] acknowledges the existence of a causal element but downplays its explanatory function in favor of its practical function. In my rendering, that is, the mechanism is not interesting because it solves an explanatory puzzle of how to link some effect to its causes. Rather, it is interesting primarily for itself, as a method of actualizing some latent potential and converting it to any number of possible ends....It is interesting because it has the potential to be applied in numerous and diverse settings for numerous and diverse ends (Bardach, 2004: 209).

⁹The distinction between conceptual dissonance and clash is addressed in Fauconnier and Turner (2002).

Insofar as social scientists are minded to bring a design perspective into public policy analysis and research, then they have to recognize, own, and deal with incongruities between social science and typically professional design orientations. Such "good trouble" is the happy present state of our affairs.

3. Dealing with Social Science/Design Dissonance

A famous theorist in rhetoric has provided insightful instructions in dealing with our "good trouble", although this theorist – the late Kenneth Burke -- is seldom mentioned in social science circles¹⁰ and is largely unknown in public policy and administration.¹¹ Writing about how to deal with distasteful ideological orientations, Burke argued that it is better to adopt a frame of acceptance than one of rejection. Adopting a frame of acceptance isn't the same thing as being uncritical. It enables one to be critical in an effective, even creative, way. Being critical in an effective way involves working within literary genres allied to the acceptance frame, including comedy, rather than those allied to the rejection frame, such as satire and burlesque. Working with genres allied to the acceptance frame allows one to recruit (and re-purpose) ideas that carry meaning for those who are meant to become attracted to the orientations, namely to provide counter-statements that include apparently incongruous thought patterns and commitments, from the standpoint of the culture one lives in. Burke's analogy for such counter-statements: poems. They allow cultures to transcend¹² upwards, rather than downwards toward fanaticism.

¹⁰ Exceptions include Gusfield (1989), McCloskey (1989), Abbott (2004). In "The Dismal Science and Mr. Burke," McCloskey pointed to Albert O. Hirschman as an economist whose writings exhibited a Burkean cast.

¹¹ Burke is best known as a seminal figure in the New Rhetoric, similar in stature to Stephen Toulmin in that respect (Perelman and Sloane, 2019). Whereas Toulmin came to the New Rhetoric from academic philosophy, Burke came to it from the front-lines of literary criticism (Simons, 1989; Stob, 2008; Beach, 2012). The Burkean ideas relevant to dealing with good trouble were presented in the 1930s, especially in essays assembled into his notable book *Attitudes Toward History* (Burke 1984/1937).

¹²Burke (1984/1937) wrote: "When approached from a certain point of view, A and B are "opposites". We mean by "transcendence" the adoption of another point of view from which they cease to be opposites. This is, at present, the nearest approach we can make to the process by verbal means."

Any statement about design-focused case studies is a counter-statement in this sense, one meant to allow for an upward transcendence of our dissonance with the mainstream policy field. To us, Bardach issued a series of such counter-statements, with the 1994 and 2004 texts being the most compelling. Nevertheless, we consider that a fuller Burkean approach is needed, one that retrieves lines of thought and texts from various precincts and periods of the past; essentializes them; and then brings them into a "new" orientation that can then be a basis for creative and constructive action. That spirit and approach is in evidence in *Public Management as a Design-Oriented Professional Discipline*, which presented a metaphorical constitution for such a discipline as a "downtown district" of Public Administration (and within the ex-urbs of other fields such as Management) as well as an in-progress account of design-focused case studies and their role within it (Barzelay, 2019).

A new resource for this Burkean exercise of essentializing ideas from the past and recruiting them into an upward-transcending orientation is a genealogical tree of design-focused case studies of public management (Figure 2).¹³ As seen below, the tree includes a variety of orientations – some as "old" as casuistry, others as "new" as processual sociology. It also consists in three trunks: contemporary policy sciences, methods of discovery, and management.

Genealogically, the design perspective comes from the management trunk. More specifically, it comes from three trunk-specific historical "moments of transcendence". First, a Fayolian moment, prior to World War I, involving ideas about enterprises and organizations, on the one hand, and ancient ideas (identified with Aristotle and Quintilian) about practical argumentation about indefinite questions, on the other. Second, a Simonian moment, well after World War II, involving ideas about organizations and enterprises, on the one hand, and debates about professional disciplines and professional practice in the sciences of the artificial (including engineering), on the other. Third, a design-centered moment, after the 1960s, involving fields of design differentiated by their media and philosophy, leading gradually to design studies becoming a field full of vitality. Bringing a design

¹³The value of a genealogical tree approach to understanding research archetypes was clearly demonstrated in Abbott (2001b), and the same is true for purposive theorizing about planning in the public domain (Friedman, 1979).

perspective to social scientific research on public organizations and their management involves creating a new, fourth moment, through moves that reinforce the trunk-like qualities of management and place it into persistent contact with methods of discovery (especially ones allied to processual sociology) and contemporary policy sciences.

In glancing through the chapter, you may have had the good old feeling that you had come into the middle of a conversation. That was intentional. It was designed to motivate you to be interested in the threads woven into it. The role of re-telling *Essence of Decision* was to show that it is quite normal to be studying policy-related phenomena in a design-oriented way, specifically in seeking to recover designs as means to furnish usable knowledge about the practical archetypes with which our fields are concerned. Showing how this conversation's threads had been spun, by taking you back to Bardach (1994, 2004), was designed to dissipate your feeling of disorientation in having come into a conversation that had been going on intensely for a while. Hopefully, that disorientation has been sufficiently dissipated that you'll want to get into good trouble, too.

4. Implications for Research on Policy Designing

In this final section, we discuss briefly what significance this chapter holds for policy designing research related to public policy-making, in a wider sense. It can be held for agreed that public policy-making consists in myriads of moves made by definite agents within definite locations of space and time. Any further *general* statement about policy-making is inevitably theory-laden.

Looking across the terrain of public administration, differing profiles of general statements are discernible, to the point that a simple taxonomy is plausible. In the 2x2 matrix below, policy-making theories are framed in two ways. The columns represent two idealized traditions of inquiry. An empirical tradition is strongly identified with political science, whereas a practical-professional tradition is strongly identified with the interdisciplinary fields of public administration and policy sciences. The rows represent two perspectives on policy-making – the play of power and intelligence – that ran through Charles E. Lindblom's (1980) second edition of *The Policymaking Process*. One perspective views policy making as a political process whose metaphorical essence is pulling and

hauling, while the other perspective views policy making as solving collective problems in a collective manner, where knowledge and information come into play, as do their source activities, such as professional social inquiry (Lindblom and Cohen 1979). The result is that four profiles of policy-making theories are represented, each of which is associated with specific familiar themes in the literature (see Figure 3).

Set within this frame for theoretical statements about policy-making, the character of policy designing is marked by the intelligence perspective, and it gains sustenance from the practical-professional tradition. The main implication is that policy designing is to be theorized, not only descriptively as an activity, but as a practical one involving the reflective probing of purposes and intentions as well as the designing and adoption of practical means for attaining them. This switch from an empirical to practical framing of policy designing brings challenges, because *theorizing any practical activity is highly challenging*.

The challenging nature of making theoretical statements about practical matters (where the intelligence perspective is predominant) has been recognized for millennia. Culture holds that *reasonable responses to a practical question* take into account considerations of circumstance, i.e., conditions present in a situation at hand as they relate to each other contemporaneously or temporally. But *practical theories* by-pass (without ignoring) the situated specificities of circumstance. As referred to in the beginning of the chapter, Quintilian's gloss on classical rhetoric distinguishes between practical argumentation about indefinite questions, i.e., practical theories, and practical argumentation about definite questions.

How is such theorizing then to be done well? This handbook chapter takes a conventional stance on that question, as it holds that practical theories concerned with policy design involve the reciprocally-defining concepts of *archetypes* and *cases*. Archetypes involve theoretical statements about practical questions. Statements about cases, in turn, are made to reflect critically on statements about a given archetype and to elaborate them.

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In this chapter, the archetype of policy designing is elaborated in directions that involve seeing public programs (whether a stable repetitive or campaign-like ones) as policy interventions. Theoretical statements about such policy interventions are elaborated upon by incorporating ideas about public organizations and their working phenomena of practices and systems, which can be seen as practical means of furnishing operational capacity needed to fulfill the functional-intent of public programs. Thus, the functional-teleology of policy designing includes designing working phenomena (e.g., practices and systems) of public organizations and the programs, with the intent being that they will deliver a well-designed policy intervention.

A few more moves about designing practice- and system-like working phenomena is needed before turning to a discussion of policy design research. One move is to say that "design references" are means for designing such working phenomena. In the sense developed throughout the chapter, design references include the purposive theories about archetypes and recovered designs about cases that are brought into any given policy-making situation. A subsequent move is to acknowledge purposive theories of public organizations and their management as inherently apt for design referencing. Likewise, introducing and considering recovered designs is potentially apt, provided that considering them as design-precedents is relevant for both analyzing problems and synthesizing practices and systems (and their realization plans) for the policy intervention being designed. This latter idea must necessarily be thickened up by statements about developing design-oriented reasoning skills and related abilities of participants in policy design, but that topic is well beyond the scope of this chapter.

Given this practical-professional theoretical framing of policy designing, we can formulate one for *research* on policy designing, in a way that suits this chapter. Simply put, the intent of such research is that its results are used as design-reference. in as much as they are formed by and reflectively discussed through (a) purposive theories involving archetypes and (b) recovered designs involving cases. Both purposive theories and recovered designs concern public organizations and their management. Purposive theories concern functional-teleologies of public organizations as well as discussions of practical means for fulfilling them, with practices and systems being theoretical concepts used in characterizing such means archetypally. Designs recovered from cases concern actual practices and systems in their spatial and temporal locations within policy interventions.

Examining and assessing how a case's "scenario-processes" (see Glossary) were practical means for fulfilling a specific functional-teleology is an even more crucial aspect of recovered designs. Various options are available for this. One accords with Bardach's idea of smart practices, according to which social mechanisms are seen to belong to social nature, which, in turn, gets harnessed by situated practices to fulfill a specific functional-teleology ascribed to the case's public program or organization, allowing for fulfilment of intent on the cheap. Another option for design recovery accords with the general idea that all practical undertakings involve forces working against the fulfilment of their intent and therefore require measures (hence, scenario-processes) to counteract them. From this standpoint, a recovered design consists in statements about a case's scenario-processes as well as in statements about the role they have played as a case's counter-measures. Both of these approaches have their virtues and uses, with the latter one illustrated in this chapter by *Essence of Decision*.

This chapter was about showing the value of design-focused case studies for an academic discipline of public management within the interdisciplinary field of public administration. Design-focused case study research projects, considered archetypally, aim to recover designs in cases to be used as design references in practical, and intelligent, activity of policy design in new situations. This archetype has roots in the field of public policy and management going back nearly 30 years. Knowing this intellectual history is means to acquire an understanding of design-focused case studies as well as to appreciate the potential of taking up such a design-oriented approach to research and practice in the field of public policy.

5. References

- Abbott, A. 1992. From causes to events: notes on narrative positivism. Sociological Methods and
 - Research, 20(4): 428–455.

- Abbott, A. 2001a. Time Matters. Chicago, IL: University of Chicago Press.
- Abbott, A. 2001b. Chaos of Disciplines. Chicago, IL: University of Chicago Press.
- Abbott, A. 2004. Methods of Discovery: Heuristics for the Social Sciences. New York, NY: Norton.
- Abbott, A. 2016. Processual Sociology. Chicago, IL: University of Chicago Press.

Allison, G.T., Jr. 1971. Essence of Decision. Boston, MA: Little Brown.

- Anderson, C.W. 1993. Recommending a scheme of reason: Political Theory, policy science, and democracy. *Policy Sciences*, 26(3): 215-227.
- Ariew, A., R. Cummins, and M. Perlman, eds. 2002. Functions: New Essays in the Philosophy of Psychology and Biology. Oxford, UK: Oxford University Press,
- Bardach, E. 1994. Comment: The problem of 'best practice' research. *Journal of Policy Analysis* and Management, 13(2): 260-268.
- Bardach, E. 2004. Presidential address -- The extrapolation problem: How can we learn from the experience of others? *Journal of Public Policy and Analysis*, 23(2): 205-220.
- Barzelay, M. 1992. Breaking Through Bureaucracy: A New Vision for Managing in Government.Berkeley, CA: University of California Press.
- Barzelay, M. 2007. Learning from second-hand experience: methodology for extrapolation-oriented case research. *Governance*, 20(3): 521-543.
- Barzelay, M. 2019. *Public Management as a Design-Oriented Professional Discipline*. Cheltenham, UK: Edward Elgar.
- Barzelay, M., and C. Campbell. 2003. Preparing for the Future: Strategic Planning in the U.S. Air Force. Washington, DC: Brookings Institution Press.
- Barzelay, M., and R. Gallego. 2006. From historical institutionalism to institutional processualism: Advancing the study of public management policy change. *Governance* 19(4); 531–557.
- Beach, D. 2016. It's all about mechanisms: What process-tracing case studies should be tracing. *New Political Economy*, 21(5): 463-472.

- Beach, J.M. 2012. *Kenneth Burke: A Sociology of Knowledge: Dramatism, Ideology and Rhetoric.* Austin, TX: Southwest Press.
- Bryson, J.M. 2018. *Strategic Planning for Public and Nonprofit Organizations: A Guide to Strengthening and Sustaining Organizational Achievement*, 5th ed. Hoboken, NJ: Wiley.
- Bryson, J.M. 1995. *Strategic Planning for Public and Nonprofit Organizations: A Guide to Strengthening and Sustaining Organizational Achievement*, rev. ed. San Francisco, CA: Jossey-Bass.
- Burgess, A., H. Cappelen, and D. Plunkett, eds. 2020. Conceptual Engineering and Conceptual Ethics. Oxford, UK: Oxford University Press.
- Burke, K. 1984/1937. Attitudes Toward History. Berkeley, CA: University of California Press.
- Cairney, P., and C.M. Weible. 2017. The new policy sciences: Combining the cognitive science of choice, multiple theories of context, and basic and applied analysis. *Policy Sciences*, (50)4: 619-627.
- Chikofsky, E. J., and J.H. Cross. 1990. Reverse engineering and design recovery: A taxonomy. *IEEE software*, (7)1: 13-17.
- Craver, C.F., and L. Darden. 2013. In Search of Mechanisms: Discoveries across the Life Sciences. Chicago, IL: University of Chicago Press.
- Cross, N. 2008. Engineering Design Methods: Strategies for Product Design, 4th ed. Chichester, UK: Wiley.
- Dunn, W.N. 2018. Public Policy Analysis, 6th ed. New York, NY: Routledge.
- Dunn, W.N. 2019. Pragmatism and the Origins of the Policy Sciences: Rediscovering Lasswell and the Chicago School. Cambridge, UK: Cambridge University Press.
- Dym, C.L. 1994. *Engineering Design: A Synthesis of Views*. Cambridge, UK: Cambridge University Press.

- Eckert, C., M. Stacey, and C. Earl. 2005. References to past designs. In. *Studying Designers '05,* eds. J.S. Gero and N. Bonnardel. Sydney, Australia: Key Centre of Design Computing and Cognition, pp. 3–21.
- Fauconnier, G., and M. Turner. 2002. *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities*. New York, NY: Basic Books.
- Fayol, H. 1984. General and Industrial Management, revised by Irwin Gray. New York, NY: The Institute of Electrical and Electronics Engineers.
- Gambetta, D. 1998. Concatenations of mechanisms. In Social Mechanisms: An Analytical Approach to Social Theory, ed. P. Hedström and R. Swedberg. Cambridge, UK: Cambridge University Press, 102-124.
- Garsten, B. 2006. *Saving Persuasion: A Defense of Rhetoric and Judgment*. Cambridge, MA: Harvard University Press.
- Goldschmidt, G. 1998. Creative architectural design: Reference versus precedence. *Journal of Architectural and Planning Research*, 15(3): 258-270.
- Gusfield, J.R. 1989. Separated lands: Kenneth Burke's significance for the study of social action. In *The Legacy of Kenneth Burke*, ed. H. W. Simons and T. Melia. Madison, WI: University of Wisconsin Press, 28-54.
- Hood, C., and M.W. Jackson. 1991. Administrative Argument. Aldershot, UK: Dartmouth.
- Janis, I.L. 1971. Groupthink. Psychology Today, 5 (6): 43-46.
- Jonsen, A.R., and S. Toulmin. 1988. *The Abuse of Casuistry: A History of Moral Reasoning*. Berkeley, CA: University of California Press.
- Lakoff, G., and M. Johnson. 1999. *Philosophy in the Flesh: The Embodied Mind and its Challenge* to Western Thought. New York, NY: Basic Books.
- Lawson, B. 2012. What Designers Know. London, UK: Routledge.

Lindblom, C.E. 1980. The Policymaking Process, 2d. ed. Englewood Cliffs, NJ: Prentice-Hall.

- Lindblom, C.E., and D.K. Cohen. 1979. Usable Knowledge: Social Science and Social Problemsolving. New Haven, CT: Yale University Press.
- Linder, S.H., and B.G. Peters. 1988. The analysis of design or the design of analysis? *Policy Studies Review*, 7(4): 738-750.
- Lynn, L.E., Jr. 1994. Public management research: The triumph of art over science. *Journal of Policy Analysis and Management*, 13(2): 231-259.
- Lynn, L.E. 1996. *Public Management as Art, Science, and Profession*. Chatham, NJ: Chatham House.
- Mahoney, J., and K. Thelen, eds. 2009. *Explaining Institutional Change: Ambiguity, Agency, and Power*. Cambridge, UK: Cambridge University Press.
- Mashaw, J.L. 1981. *Bureaucratic Justice: Managing Social Security Disability Claims*. New Haven, CT: Yale University Press.
- McAdam, D., S. Tarrow, and C. Tilly. 2001. *Dynamics of Contention*. Cambridge, UK: Cambridge University Press.
- McCloskey, D.N. 1989. The dismal science and Mr. Burke: Economics as a critical theory. In *The Legacy of Kenneth Burke*, ed. H. W. Simons and T. Melia. Madison, WI: University of Wisconsin Press, 99-114.
- Merton, R.K. 1948. The self-fulfilling prophecy. The Antioch Review, 8(2): 193-210.
- Mintzberg, H. 1983. *Designing Effective Organizations: Structures in Fives*, 3d ed. Englewood Cliffs, NJ: Prentice-Hall.
- Moore, M.H. 1995. *Creating Public Value: Strategic Management in Government*. Cambridge, MA: Harvard University Press.
- Morgan, M.S., and M. Morrison, eds. 1999. *Models as Mediators: Perspectives on Natural and Social Science*. Cambridge, UK: Cambridge University Press.
- Oberlack, C., D. Sietz, E. Bürgi Bonanomi, A. De Bremond, J. Dell'Angelo, K. Eisenack, E. C. Ellis, G. Epstein, M. Giger, A. Heinimann, C. Kimmich, M. T. J. Kok, D. Manuel-Navarrete,

P. Messerli, P. Meyfroidt, T. Václavík, and S. Villamayor-Tomas. 2019. Archetype analysis in sustainability research: Meanings, motivations, and evidence-based policy making. *Ecology and Society*, 24(2):26. URL: https://www.ecologyandsociety.org/issues/view.php?sf=133. [Accessed March 16, 2021]

O'Toole, L., Jr. 2000. Research on policy implementation: Assessment and prospects. Journal of *Public Administration Research and Theory*, 10(2): 263-288.

Pawson, R., and N. Tilley. 1997. Realistic Evaluation. London, UK: Sage.

Quintilian. 1920. *Institutio Oratoria*, ed. Harold Edgeworth Butler. URL: http://www.perseus.tufts.edu/hopper/text?doc=urn:cts:latinLit:phi1002.phi0013.perseuseng1:5. [Accessed 15 March 2021]

- Ragin, C.C. 1987. *The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies*. Berkeley, CA: University of California Press.
- Rescher, N. 1996. *Process Metaphysics: An Introduction to Process Philosophy*. Albany, NY: SUNY University Press.
- Rock, P. 1979. The Making of Symbolic Interactionism. London, UK: Macmillan.
- Selznick, P. 1957. Leadership in Administration. New York, NY: Harper and Row.
- Simon, H.A. 1996. The Sciences of the Artificial, 3d ed. Cambridge, MA: MIT Press.
- Simons, H.W. 1989. Introduction: Kenneth Burke and the rhetoric of the human sciences. In *The Legacy of Kenneth Burke*, ed. H. W. Simons and T. Melia. Madison, WI: University of Wisconsin Press, 3-27.
- Simons, H.W., ed. 1990. *The Rhetorical Turn: Invention and Persuasion in the Conduct of Inquiry*. Chicago, IL: University of Chicago Press.
- Sloane, T.O. 2019. Rhetoric. *Encyclopædia Britannica*. URL: https://www.britannica.com/topic/rhetoric. Accessed: 30/07/2021.

- Sołtan, K. E. 1993. What is the new constitutionalism? In A New Constitutionalism: Designing Political Institutions for a Good Society, ed. S.L. Elkin and K.E. Sołtan. Chicago, IL: University of Chicago Press, 3-17.
- Stake, R.E. 1995. The Art of Case Study Research. Thousand Oaks, CA: Sage.
- Stake, R.E. 2010. *Qualitative Research: Studying How Things Work*. New York, NY: Guilford Press.
- Staw, B.M. 1981. The escalation of commitment to a course of action. *Academy of Management Review*, 6(4): 577-587.
- Stivers, C. 2000. Public administration theory as a discourse. *Administrative Theory & Praxis*, 22(1): 132-139.
- Stob, P. 2008. 'Terministic screens', social constructionism, and the language of experience:Kenneth Burke's utilization of William James. *Philosophy & Rhetoric*, 41(2): 130-152.

Stoker, G. 2012. In defence of political science. The Political Quarterly, 83(4): 677-684.

Sudjic, D. 2008. The Language of Things. London, UK: Penguin.

- Tilly, C. 2006. *Why? What Happens When People Give Reasons...and Why*. Princeton, NJ: Princeton University Press.
- Toulmin, S. 1958. The Uses of Argument. Cambridge, UK: Cambridge University Press.
- Vickers, G. (1965). The Art of Judgment: A Study of Policy Making. New York, NY: Basic Books.

Walton, D.N. (1992). Plausible Argument in Everyday Conversation. Albany, NY: SUNY Press

- White, J.B. 1985. *Heracles' Bow: Essays on the Rhetoric and Poetics of the Law*. Madison, WI, University of Wisconsin Press.
- White, R.M. 2016. *Talking about God: The Concept of Analogy and the Problem of Religious Language*. Abingdon, Eng.: Routledge.

Yin, R. K. 2002. Case Study Research: Design and Methods. Thousand Oaks, CA: Sage.

6. Appendix: Glossary

6.a. Management (design-oriented)

Design-precedents. A concept recruited from architecture/design studies (see Lawson, 2012). Design-precedents are analytical reports about particular working phenomena that are apt as design-references in the creation of yet-to-exist working phenomena. Such reports can result from reverse-engineering.

Practical-archetypes. A concept recruited from architecture/design studies (see Sudjic, 2008). Archetypes are kinds of working phenomena. Public organizations are working phenomena belonging to policy interventions, while management and technical systems are working phenomena within public organizations.

Realization Plan. A concept that van Aken recruited from engineering and architecture. It is a plan for the realization stage of a project whose main role is to realize the object design created during the front-end or design phase.

Reverse-engineering / design recovery. A concept recruited from engineering design (see Simon, 1996, Chikofsky and Cross, 1990). Reverse engineering is a way of analyzing a particular working phenomenon, especially artificial systems, that seeks to recover its design.

Strategic management. A concept recruited from Fayol's (1984) and Selznick's (1957) work. Strategic management is a management field discipline, whose lineages (including Fayol) exhibit a balanced and integrated concern for enterprises and organizations. One of its hallmarks is a sustained practice of distilling practical theories of enterprises that weave together functional-teleological and epistemic lines of argumentation. Another hallmark is the use of case study research as means to revise and reformulate such practical theories of enterprises and organizations.

Strategic management in government. A concept recruited from the strategic management discipline (see Moore, 1995). Strategic management in government is an orientation to professional practice whose functional-teleology is to implement public programs to fulfil political aspirations for aggregate social conditions (i.e., create public value).

Working phenomena (WP). A concept developed from Simon's counter statement to modern medical school approach (see Simon, 1996; Barzelay, 2019). WP is our own term that is similar in concept to Simon's artificial system. All artificial systems are WP but not the reverse, as many WP are scenario-processes (i.e., event-like activities) rather than artifacts and conversion processes. All working phenomena play roles in fulfilling the intent of enterprises, however much or little their existence or occurrence is the result of intentional control.

6.b. Methods of discovery

Instrumental case studies. A concept recruited from case studies (see Ragin, 1987; Stake, 1995; Yin, 2002). Case studies' attributes include information and analysis of contextually-situated complex particulars that are entity- or process-like or both. Instrumental case studies claim to speak

to debates about kinds that have a role to play in their disciplines of study, whether scientific or professional (Stake, 2010).

Models and mechanisms. A concept recruited from philosophy (see Morgan and Morrison, 1999; Craver and Darden, 2013). In the philosophy of science, models are now seen as playing a crucial role in mediating between reality and scientific knowledge. Models used in scientific work result from conventionalization of conceptually-engineered ideas, expressed in specialist language. Such ideas blend semantic frames that idealize phenomena descriptively with others that idealize phenomena causally. Many theories of social phenomena reflect specific descriptive and causal idealizations conventionalized in models, with social mechanisms being heuristics for model-building in this sense (Beach, 2016).

Scenario-process. A concept recruited from the Chicago School of Sociology (see Abbott, 2016). Scenario-processes are event-like activities that play causal roles as sources of conditions within a setting. Activities within them involve multiple individuals. Dynamically stable conditions are causal sources of the paths of conditions that emerge during the events. Dynamically stable conditions are analyzable as process context factors and process design features.

Superior stories. Another concept recruited from the Chicago School of Sociology (see Tilly, 2006). Superior stories are interpretations of event-like social phenomena that have been chronicled. The interpretations of such phenomena speak to epistemic issues of causal connectivity among conditions that belong to them. Both narration and explanatory argumentation play roles in the making and presentation of superior stories.

6.c. Contemporary policy sciences

Realistic program evaluation. A concept recruited from program evaluation (see Pawson and Tilley, 1997). Realistic evaluation treats public programs holistically as working phenomena and reverse engineers them so as to furnish knowledge for use in planning policy interventions. Its hallmark is the idea that program outcomes result from the interplay of measures (mechanisms) and contexts.

Smart practice analysis (SPA). A concept recruited from implementation studies (see O'Toole, 2000). Smart practice analysis is an archetype of research about policy-related working phenomena. Its functional-teleology is the search for contextually-situated measures within a program or other kinds of working phenomena that achieve patterns of functioning that deliver highly attractive benefits at surprising low cost, even considering side-effects. Its hallmark is to locate causal sources of goal accomplishment in the way such contextually-situated measures tend to activate social or psychological mechanisms, much as is done in some approaches to reverse engineering of physical artificial systems, where features are understood to take advantage of natural tendencies.



Figure 1. Emergence of the Design-focused Case Study Archetype (1994-2007)



Figure 2. Design-focused case studies of public management: genealogical tree

	Empirical	Practical-professional
Play of power	Advocacy coalitions	Policy entrepreneurship
Intelligence	Availability and attention to policy knowledge	Policy designing

Figure 3. The Four Profiles of Policy-making Theories